DOCUMENT RESUME

ED 389 879 CE 070 357

AUTHOR	Lankard, Bettina A.
TITLE	SCANS and the New Vocationalism. ERIC Digest No. 165.
INSTITUTION	ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, Ohio.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO	EDO-CE-95-165
PUB DATE	95
CONTRACT	RR93002001
NOTE	4p.
PUB TYPE	Information Analyses - ERIC Clearinghouse Products (071)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Basic Skills; *Educational Change; Educational Development; *Employment Potential; High Schools; Job Skills; Labor Force Development; Postsecondary Education; *School Business Relationship; State Programs; Tech Prep; Vocational Education
IDENTIFIERS	ERIC Digests; *Secretarys Comm on Achieving Necessary Skills

ABSTRACT

The Secretary's Commission on Achieving Necessary Skills (SCANS) report challenged schools, parents, and businesses to help all students develop competencies in the basic skills, thinking skills, and personal qualities required for work in the current and future workplace. In response to this challenge, vocational-technical programs were redesigned, and efforts such as tech prep were initiated. Tech prep programs in Texas, Indiana, and Ohio were designed around the SCANS competencies. Examples of state and local efforts to strengthen the connections between schools and work were The Critical Skills Foundation (Wheaton, Illinois) and Project C: Communities, Corporations, Classrooms (Fort Worth, Texas). The Department of Defense Dependents Schools in Germany initiated Project SCANS Integration to explore how well all high school instructors would be able to integrate the desired competencies into their courses and how well the competencies could be rated and recorded for their students. Positive results came from the 1993-94 pilot test. The publication, Teaching the SCANS Competencies, contains practical suggestions for applying SCANS in the workplace. (Contains 10 references.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 389 879

SCANS and the New Vocationalism
ERIC Digest No. 165

Bettina A. Lankard

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ERIC Clearinghouse on Adult, Career, and Vocational Education
Center on Education and Training for Employment
College of Education
The Ohio State University
1900 Kenny Road
Columbus, OH 43210-1090

BEST COPY AVAILABLE

CE 070 357

DIGEST
NO. 165

ERIC Clearinghouse on Adult, Career, and Vocational Education

SCANS and the New Vocationalism

by Bettina A. Lankard

1995

EDO-CE-95-165

In 1991, the Secretary's Commission on Achieving Necessary Skills (SCANS), U.S. Department of Labor, issued its report on the competencies, skills, and personal qualities needed to succeed in the high performance workplace. This ***Digest*** examines whether and how the SCANS report has influenced educational reform in the United States and provided guidance to other countries. Descriptions of various SCANS-related projects and their outcomes are presented as evidence of progress toward educational reform.

The Challenge

The SCANS report challenged schools, parents, and businesses to help all students develop competencies in the basic skills, thinking skills, and personal qualities required for work in the current and future workplace. It identified five broad categories of competencies that would lead to successful transition from school to work (SCANS 1991):

- **Resources**—Identifies, organizes, plans, and allocates resources
- **Interpersonal**—Works with others on teams, teaches others, serves clients, exercises leadership, negotiates, and works with diversity
- **Information**—Acquires, organizes, interprets, evaluates, and communicates information
- **Systems**—Understands complex interrelationships and can distinguish trends, predict impacts, as well as monitor and correct performance
- **Technology**—Works with a variety of technologies and can choose appropriate tool for task

The SCANS report recommended that these competencies be learned in context in the environment in which they will be applied. Thus, the need for collaboration between schools and employers became apparent, as did the need for educational reform. Guided by these factors, vocational-technical programs have been redesigned and efforts such as tech prep have been initiated to respond to the SCANS challenge.

State and Local Efforts

Since 1991, many educational efforts have been initiated to incorporate the SCANS skills in the vocational-technical curricula of both secondary and postsecondary institutions. The Division of Vocational Education in the Idaho Department of Education, for example, developed a curriculum framework for the state's vocational-technical programs to address the training needs of employers and students. This framework, developed by industry and education personnel, encompassed the goals outlined in the SCANS report (Idaho Department of Education 1994).

Tech prep programs in many states have been developed around the SCANS competencies. The Texas Education Agency and the University of Texas at Austin developed a model that incorporates tech prep components and SCANS competencies into their health science technology education program (McCarty et al. 1994). As part of their tech prep project, 91 Indiana secondary and postsecondary educators developed 50 application-based lessons during the 1993-1994 school year. Modeled around the SCANS competencies, these lessons are designed to bridge the gap students encounter when moving from school to work, focusing on long- and short-term project topics such as "creating a videotape" (Indiana Region 10 Tech Prep Consortium 1994).

Most tech prep efforts incorporate recommendations presented in the SCANS report. For example, tech prep in Ohio is characterized by six benchmarks that focus on SCANS competencies (Ohio Department of Education 1993):

- Tech prep programs will demonstrate systemic change at both the secondary and postsecondary level.
- Tech prep programs will attract those students who are neither in college prep or vocational programs and will provide expanded opportunities for students in traditional college prep or vocational programs.
- Tech prep programs must demonstrate a partnership between secondary education, postsecondary education, and business/industry and labor.
- Tech prep programs must develop in students the academic, occupational, and employability competencies at both secondary and postsecondary levels that enable employment.
- Tech prep programs include early career education, starting with the individualized career plan in grade 9, and establish a tech prep path that arranges the study of mathematics, science, communications, technology, and specific technical skills in a step-by-step progression of coordinated curricula.
- Tech prep programs must prepare completers with the advanced skills necessary for technical occupations.

Other examples of state and local efforts to strengthen the connections between school and work were featured by Meltzer et al. (1993). Two of these are described here. *The Critical Skills Foundation* (Wheaton, Illinois) was formed to "facilitate the development and dissemination of curricula and projects in which students may practice the critical skills in the environment of a real-world business partner" (p. 58). The foundation developed two approaches to teaching critical skills. The SCANS-related field study projects have been conducted for various businesses in the community and have led to the development of a guidebook titled ***Field Studies and Applied Learning for High School Students***. The applied learning/cooperative education projects featured the applied learning approach, which emphasizes SCANS foundation skills as well as skills and competencies in four different business sectors—office, retail, restaurant/food service, and medical practices/clinics. This approach enables cooperative education partners to teach the SCANS skills and competencies in a real-world environment (ibid.).

Meltzer et al. (1993) describe *Project C: Communities, Corporations, Classrooms* (Fort Worth, Texas) as "one of the nation's best examples of putting SCANS into practice" (p. 62). This project conducted an analysis of 791 jobs, involving over 3,000 employees in more than 300 Fort Worth businesses. After identifying the job tasks and skills required to complete each task, the workers rated the level of proficiency for each skill (and the level of education required—secondary and postsecondary). As a result of this initial effort, significant curriculum changes were made to incorporate the use of technology in teaching math and science principles. Laboratories were also redesigned to accommodate process-oriented rather than materials-oriented instruction. Teachers now assign students problems to solve, rather than items to make. "One task, for instance, was for students to design a child's toy with only three specified constraints: the toy had to be something that could be pulled, have no more than three moving parts, and use non-toxic materials" (ibid., p. 65).

Influencing Education Overseas

The Department of Defense Dependents Schools (DoDDS) in Germany initiated *Project SCANS Integration*. This project was "designed to explore how well all high school instructors would be able to integrate the desired competencies into their courses and how well the competencies could be rated and recorded for their students" (Ryan and Pritz 1994, p. 1). To begin the effort, a group of 42 DoDDS teachers was assembled for a week-long workshop in Columbus, Ohio. During the workshop, the teachers began to identify functional competencies from the curriculum in their specific disciplines and then listed places in their courses where each of the SCANS competencies might be learned. In subsequent sessions, the teachers explored and achieved consensus on three competencies per SCANS category (within the headings of Employability Skills and Interpersonal Skills) that they would address. "Initial reactions of students and teachers to the integration of SCANS competencies were clearly positive and encouraging, and they provided helpful ideas and input to share with a new group of teachers" (ibid., p. 2).

A second group of DoDDS teachers was oriented to the process and the program was pilot tested by them during the 1993-1994 school year. The results have been positive. "Teachers have been open and articulate about their recognition that changes in instructional delivery and assessment are implied by the program, and they have known from the outset that they have the freedom as well as the responsibility to determine what those changes should be" (ibid., p. 2).

Ryan and Pritz (1994) list some of the teaching beliefs that have guided the program (p. 6):

- A gap has existed between employer expectations and an awareness of those expectations by both students and educators; therefore, it is important for educators to define expectations about employability and interpersonal competencies and prompt student exploration of them.
- Teachers should retreat from being the sole source of information in the classroom and delegate more responsibility to students for their own learning.
- Performance-based forms of assessment are imperative to draw conclusions about competencies earned; student self-evaluation and interactive assessment are helpful, as is continuing rather than one-time assessment.
- The mastery of SCANS competencies and other curriculum objectives can be supported by selecting supplemental instructional materials from authentic sources and implementing cooperative learning strategies.
- An interdisciplinary approach is beneficial for students to recognize and practice broader application of skills than in one course.

Selected Resources

Teaching the SCANS Competencies contains practical suggestions for applying SCANS in the workplace. Some of these suggestions are described by Meltzer et al. (1993). Other ideas from this volume include the following:

"SCANS in the Schools" (Copple et al. 1993) offers recommendations for incorporating SCANS competencies into the curriculum, identifying issues likely to arise and giving examples of application in the curriculum.

"Students Use SCANS to Explore Changing Jobs: Lessons of Indiana Plus" (Harr 1993) presents lessons that were developed through a statewide project that could be replicated in other locales. This learner-centered project engaged high school seniors in using the SCANS workplace-interview method to assess skill requirements in local businesses. The seniors then communicated their findings to middle school students. The student-to-student component of this project resulted in several beneficial outcomes:

- Team members felt a sense of mission in presenting important issues to younger students and enjoyed opportunities to be creative in their presentation formats and techniques.
- The younger students were more attentive because the presenters were other students (*and* students who had gone through and beyond the middle school experience).

The program was considered successful as it attained its major objectives (ibid.):

- The 5 teams averaged more than 40 interviews each in workplaces in their communities.
- Students increased skills and capacities in a number of critical areas, including computer literacy, communications skills, teamwork, self-esteem, and time management.
- Teachers added much to their knowledge of the world of work, a world from which they have been cut off because there have not been enough school-work linkages.

"Preparing Limited English Proficiency Students for the Workplace" (Grognet 1993) is directed to educators who must teach the SCANS competencies in English to first- and second-generation immigrants. It supports the value of the SCANS report, which does not presuppose that students have proficiency in oral English, stating that "by explicitly addressing the needs of limited English proficient/language-minority students vis-a-vis the areas of English language and culture, SCANS is helping to promote the concept of equal access to educational opportunities for all American students" (ibid., p. 99).

References

Copple, C.; Kane, M.; Matheson, N.; Meltzer, A.; Packer, A.; and White, T. "SCANS in the Schools." In ***Teaching the SCANS Competencies***. Washington, DC: U.S. Department of Labor, 1993. (ED 354 400)

Grognet, A. G. "Preparing Limited English Proficient Students for the Workplace." In ***Teaching the SCANS Competencies***. Washington, DC: U.S. Department of Labor, 1993. (ED 354 400)

Harr, J. "Students Use SCANS to Explore Changing Jobs: Lessons of Indiana Plus." In ***Teaching the SCANS Competencies***. Washington, DC: U.S. Department of Labor, 1993. (ED 354 400)

Idaho Department of Education. ***Idaho Vocational Technical Education Curriculum Framework***. Boise: Division of Vocational Education, Idaho Department of Education, 1994. (ED 374 325)

Indiana Region 10 Tech Prep Consortium. ***Tech Prep SCANS Lesson Development: Region 10 Tech Prep***. Bloomington, IN: Region 10 Tech Prep Consortium, 1994. (ED 374 325)

McCarty, S. et al. ***Health Science Technology Education (HSTE). A Working Model***. Austin: Extension Instruction and Materials Center, University of Texas, 1994. (ED 376 279)

Meltzer, A.; White, T.; and Matheson, N. "Implementing SCANS: First Lessons." In ***Teaching the SCANS Competencies***. Washington, DC: U.S. Department of Labor, 1993. (ED 354 400)

Ohio Department of Education. ***Summary of February 16, 1993 Workshop***. Columbus: Tech Prep Standards of Evidence Committee, Ohio Department of Education, 1993.

Ryan, R., and Pritz, S. ***Project SCANS Integration. Formative Evaluation Report***. Columbus, OH: World Class Associates, 1994. (ED 374 214)

Secretary's Commission on Achieving Necessary Skills. ***What Work Requires of Schools***. Washington, DC: SCANS, U.S. Department of Labor, 1991. (ED 332 054)

Developed with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under Contract No. RR93002001. Opinions expressed do not necessarily reflect the position or policies of OERI or the Department. ***Digests*** may be freely reproduced.

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
THE OHIO STATE UNIVERSITY
1900 KENNY ROAD • COLUMBUS, OHIO 43210

BEST COPY AVAILABLE